

AMENDMENTS TO THE CLAIMS:

Cancel claim 3 and amend the remainder of the claims. Amendments to the claims are as follows.

1. (Currently Amended) A method of regulating the power available at the manipulator of an electronic scalpel so as to cause said manipulator adapted to be used to obtain blood coagulation, said electronic scalpel being of the kind comprising:

at least a rectifying circuit (20) of the mains voltage supplying a rectified and direct voltage (201) to

at least a radio frequency circuit (302) with at least a pilot circuit (306), said radio frequency circuit being able adapted to emit as output a current carrier signal at a main frequency set by an oscillator, said current signal feeding said manipulator by a radio frequency transformer,

~~wherein it applies to said manipulator a wave form (301) resulting from the combination of said carrier wave (304) and a modulating wave (201), said resulting wave being of such a frequency that the energy transmitted to the tissue to be coagulated is such to rise the temperature of the tissue to be coagulated until denaturation of the fibrinogen contained in the tissue is caused for its transformation into fibrin.~~

said method comprising the following steps:

applying to said manipulator a wave form with at least two or three harmonics resulting from the combination of said current carrier signal and of a modulating wave,

regulating the amplitude of said resulting wave form varying the amplitude of a wave signal applied to said pilot circuit or varying said rectified and direct voltage supplied to said radio frequency circuit.

2. (Currently Amended) The method according to claim 1) wherein the energy transmitted by the manipulator to the tissue to be coagulated is such that the temperature of the tissue zone in which the coagulation takes place is comprised in a range between 50°C and 75°C, such temperature range allowing the denaturation of the fibrinogen and its transformation into fibrine.

3. (Canceled)

4. (Currently Amended) An electronic scalpel to carry out the method of claim 1) of the kind comprising:

a manipulator (41) for clotting organic tissues and at least an electrode to close the electric circuit connected thereto;

a rectifying circuit (20) fed by the mains voltage, supplying a voltage (201) to a radio frequency circuit;

a radio frequency circuit (30) comprising at least an electronic switch (305) fed by said voltage (201) and controlled by a pilot circuit (306),
wherein said radio frequency circuit (30) has as output a resulting wave (301) formed by the combination of a generally square carrier wave (304) and a modulating wave, said resulting wave circulating in a wide band resonant circuit at the frequency of said carrier wave.

5. (Currently Amended) The electronic scalpel according to claim 4) characterized in that said resonant circuit comprises at least the parasitic capacity of said electronic switch (305) and the inductance of the primary circuit of a radiofrequency transformer feeding said manipulator.

6. (Currently Amended) The electronic scalpel according to claim 4) characterized in that the wave form amplitude at the manipulator (41) is variable by means of a regulator (303) which modifies the voltage (302) of the pilot circuit (306).

7. (Currently Amended) The electronic scalpel according to claim 4) characterized in that the wave form amplitude at the manipulator (41) is variable by the modification of the rectified and direct voltage (201) which feeds said radiofrequency circuit (30), being maintained constant the voltage (302) feeding the pilot circuit (306) of said at least an electronic switch (305).

8. (Currently Amended) The electronic scalpel according to claim 4) characterized in that the wave form amplitude at the manipulator (41) is variable by the modification of the rectified and direct voltage (201) which feeds said radiofrequency circuit (30) and by means of a regulator (303) which modifies the voltage (302) of the pilot circuit (306).

9. (Currently Amended) The electronic scalpel according to claim 4) characterized in that said pilot circuit (306) is connected to a control circuit (310) comprising a microprocessor (314) interrupting at predetermined intervals the feeding of said pilot circuit so that the resulting wave passing through the resonant circuit takes the form of a train of intermittent pulses, each consisting of an amplitude modulated wave.

10. (Currently Amended) The electronic scalpel according to claim 4) characterized in that said modulating wave is applied to the collector of said electronic switch through a mains rectified voltage wave (201) without the negative half wave.

11. (Currently Amended) The electronic scalpel according to claim 4) characterized in that the carrier wave has the main frequency at 4 MHz.

12. (Currently Amended) The electronic scalpel according to claim 11) characterized in that the pulse train of the modulating wave has a frequency of 20-30 KHz.

13. (Currently Amended) The electronic scalpel according to claim 11) characterized in that the modulating wave has a frequency of 50 Hz.

14. (Currently Amended) The electronic scalpel according to claim 11) characterized in that the modulating wave has a frequency of 60 Hz.